

## GARAGE SHOULD BE WIRED NOW

Care of Machine in Winter Is Topic of Discussion During Fall Months

"Accessories and conveniences for the home garage form an important part of the automobile accessory business during the fall months," said Mr. Bowman of the Cheesman Automobile company.

"As fall approaches car owners begin to turn their attention towards the housing of their cars for the winter. A weather-proof building is, of course, the first essential, with the exception of physicians and a few others, most owners do not attempt to heat their garages. However, the large majority do want their car kept in such condition that with a few minutes' attention it is ready for use. A well lighted garage is, therefore, very much to be desired. Usually there is an absence of windows because windows afford easy access for thieves. This necessitates electric lights which only too few car owners have installed. The practice of making minor repairs and various adjustments in the dark is unsatisfactory, and sometimes constitutes a dangerous practice.

## Valve Leaks Cause Trouble for Autoists

Valve leaks are an indication of a rather common but nevertheless erroneous impression among some automobile tire users that the valve cap is an unessential thing, according to William Collier, Firestone representative.

"When the cap is not used," says Collier, "dirt is almost sure to work down into the valve. Little harm is done while the tire remains inflated. But the introduction of new air serves to drive what dirt has collected about the opening into the vital parts of the valve. An air-tight connection then becomes well nigh impossible.

## Paper Protects Many Classy Auto Tires

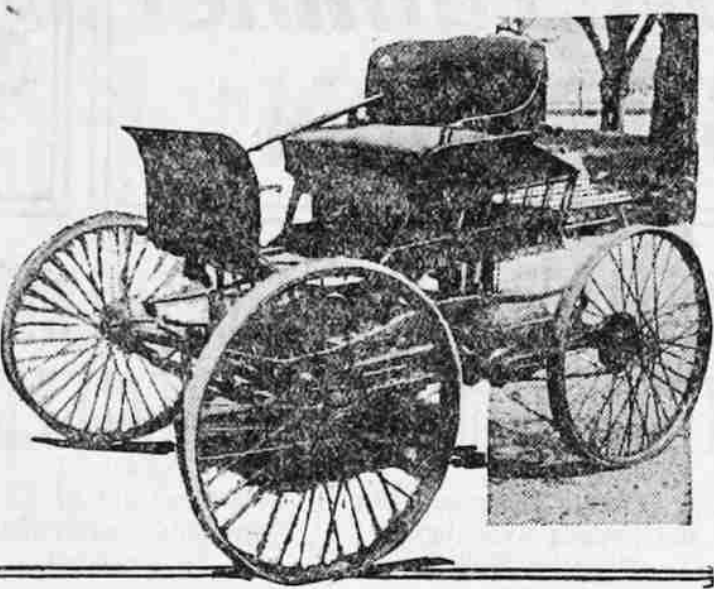
Automobile tires are wrapped in paper by the manufacturer because tire makers know that sunlight and air sap the strength of rubber. It should be protected until it actually goes on the rim for road service.

Statistics prove that a tire good for an average of 10,000 miles, when it leaves the factory will lose approximately 2,000 miles of life by being carried, unprotected as a spare for one year.

## England Will Release Alcohol for Auto Use

According to the American Chamber of Commerce in London, the new empire motor fuel committee, just formed in Great Britain, is about to release several thousands of gallons of power alcohol weekly to motorists, in order that experience may be gained in its use. Prospects for the utilization of power alcohol are thus considerably better than ever they have been in the past. The first step toward the freedom sought by motorists for traction or other power purposes, and also gives conditional authority to use it for all power purposes.

## AMERICA'S OLDEST GASMOBILE



WASHINGTON—This is a view of Elwood Haynes' pioneer car outside the Smithsonian institute. This was the first mechanically successful automobile made in America and is 27 years old. It marks the beginning of what is now America's third greatest industry.

## TRUNK HIGHWAYS ARE SOON DUE NEW PROFESSION IN AUTO WORLD

A. A. A. Chairman Holds They Are Natural Outcome of Motor's Growth

Trunk highways, like trunk railroad lines, will be the inevitable result of the increasing use of motor vehicles by the people of the United States. This is the opinion of A. O. Batchelder, executive chairman of the American Automobile association.

Already a plan for an extensive cross-country road system is engaging the attention of congress, through introduction of a bill by Senator Townsend of Michigan, providing for a national highway system that, in his opinion, would form the backbone of the main commercial arteries of the nation.

"Motor transportation has brought about the new country-wide demand for trunk highways," says Batchelder. "The railroad systems must be supplemented in various directions by the employment of the motor vehicle; where there isn't sufficient business to justify the expense of trackage, where it is a case of intercity communication which calls for door-to-door service, and where extraordinary demands can be met specially and promptly.

"With some eight million motor car owners in the country, the day may not be far distant when each family will have its own independent means of transport. Trips will be innumerable, and since highways serve both commercial necessities and pleasure demands, it is assured that we shall ultimately obtain a federal system of trunk highways, supplemented by state systems connecting all parts of the state, and finally the lesser tributaries, extending into the country in all directions, in order that the products of the soil may be conveyed to the dwellers in centers of population.

"First, the country helped the township by assuming the burden of the most important roads. Next, the states helped the counties by taking over the most used market roads. Now the federal government, after having helped the states in these intrastate networks, will, under the Townsend bill, arrange to take over the trunk roads which will bind our 48 parts into a compact nation."

South America, especially Bolivia, is being up as the promised land of oil supply. Geologists say the country is full of petroleum beds.

The first step toward developing the region has been taken by William Braden, an American engineer, who has taken an option on 5,297,875 acres of oil land in southeastern Bolivia. This in addition to other oil sources in Venezuela, Peru and other parts of northern South America now in process of development, is expected to increase the importance of oil by the United States to an extent that would insure a long future supply.

The United States is drawing heavily on imports now, although its own fields could alone meet the domestic demand for from 10 to 15 years, even if no new deposits were discovered.

Nearly 12,000,000 gallons of gaso-

Tire Surgeon Now Comes to Fore as Leader in Repair Section

A new profession—that of tire surgeon—is now attracting attention throughout the motoring world. With this new professional man, conditions are similar in certain respects to those confronting the dentist and doctor. Each must be able to prove completion of a prescribed course of study under competent authority. Each shows a diploma.

Motorists in ever increasing numbers are demanding that the men to whom they intrust their tires for repair, be competent tire surgeons, able to produce proof of training. It is simply a question of self-protection. The car owner does not fancy doing any more emergency repair work along the road than is absolutely necessary, especially when he has paid a man for doing what was represented to him as a first-class job.

According to recognized authorities in the tire industry, graduation from an accredited tire repair school will soon be an essential preliminary to the young man entering this interesting and profitable employment. In the Miller Rubber company's school in Akron, Ohio, students are given a lecture course, class room work and practical work.

The first step is to familiarize the student with the principles of tire construction. With an understanding of these, it is far simpler to teach him how to repair the tire. Not only, but all standard makes of tires are studied and many types of vulcanizing equipment used. In this way the student after he leaves the school, is not left to grope in the dark when a tire other than that in which he has specialized, is brought to him for repair.

Motorists will be interested in the fact that the graduate tire surgeon of today is being taught conservation methods for preventing tire damage in advance of trouble. He is made to realize that telling a customer how to use his tires does not cost him a future job, but does win him a satisfied customer.

The majority of these men are entering business for themselves after graduation. The others are taking responsible positions in vulcanizing plants already established.

NEW MOTOR LINES

Motor transportation is spreading so fast, the various state highway commissions have their hands full to keep up with it, in maintaining suitable roads for the heavy traffic. There are already about 5,000 motor truck lines recorded and in operation throughout the country, and several more are being organized. Like the railroads in the 70's, these lines promise to spread a network of motor highways over the country.

line were imported during the first third of 1920, although the exports were heavier. Nevertheless, due to increased domestic production over consumption, there is a gradually increasing reserve stock in the country.

## BIG CARS HELD EASY ON ROADS

Propagandist for Large Trucks Discusses Respective Merits of Different Sizes

There is probably no more vital nor widely discussed topic of interest in the motor truck industry just now than the relation of heavy duty trucks to road wear. Much opinion has been expressed as to the effect of large capacity vehicles, by virtue of their greater weight, are in some measure responsible for excessive road deterioration.

Some interesting and pointed facts in this connection were brought out recently in an interview with R. E. Fulton of the International Motor company.

DOUBTS PRESENT POLICY

"No one realizes better than the motor truck manufacturer," said Mr. Fulton, "the necessity of putting into force legislation which will preserve the roads and enable this country to approach more rapidly its ultimate state of highway perfection. It is doubtful, however, whether the policy which is now pursued of restricting large capacity trucks will be effective in accomplishing this end. There are but two possible ways of preserving the roads through legislation—either the total tonnage of traffic passing over the roads must be reduced or the road wear per ton of material transported must be decreased. Barring the heavy duty truck in an attempt to save the roads by the first method, the elimination of this most economical of motor transportation units tends to make the cost of highway transportation prohibitive. If eliminating the 7-12 ton truck would divert the freight formerly carried in those units to some entirely different transportation agency then its elimination would reduce road wear. The other carriers are not even able to cope with the traffic already in their own legitimate sphere. Therefore, if this freight is to be moved at all it must be over the highways in a larger number of light vehicles regardless of the increased cost of such transportation.

"Apparently the object of prohibiting the 7-12 ton truck is to decrease total tonnage over the highways. Let us see how it works out. The average truck of one ton capacity weighs by itself approximately 2 tons. On the other hand, in a 7-12 ton truck is less than one ton of vehicle weight for each ton of freight capacity. This means that in transporting 7 tons of material in one-ton trucks, 21 tons of traffic (total weight of vehicle and cargo) will pass over the roads whereas if transported in a 7-12 ton truck the road will have to bear only 14 tons of the traffic. In other words, the tonnage formerly shipped by the 21 one-ton trucks would have to be decreased 33 per cent, before there would be any actual reduction in the volume of traffic.

Furthermore, the approach of the economy of the heavy duty truck in bulk hauling the light vehicle must resort to excessive road speeds which have been definitely proven to be more destructive than increased weight.

"Although it might be advisable at

## Advice for Motorists Concerning Rim Cuts

Motorists are often puzzled at the reason for their tires being rim-cut. Especially are they surprised at this when the rims are in good condition. Ordinarily underinflation is held solely to blame. But there is an important contribution cause—side sway.

Sudden turning of the car throws an abnormal strain on the side walls of the tires. Occasionally this side sway is sufficient to rupture the fabric. In the majority of cases, the trouble is noticed close to the head or edge of the tire where the fabric strands are anchored.

If the injury is neglected chafing begins. Then, according to C. C. Collins, manager of the National Rubber Supply company, Miller tire and tube expert, strand after strand is weakened. The result is a blow-out.

It is a simple matter to prevent this condition. All that is required is a tire gauge, that proper pressure may be maintained, and a little care against suddenly swerving around corners.

Even after trouble has begun, prompt action in taking the injured casing to a tire surgeon for repair will greatly prolong its life.

NATIONAL PARK ROAD WILL OPEN AUGUST 25

The master highway connecting the principal national parks of the West will be officially opened on August 25. It is the longest continuous automobile highway in the world, stretching

around in practically a circle, for some 4,500 miles. The highway will make the tour of the national parks one of the most splendid trips in the country. Heretofore there were many disconcerting factors that kept the tourists away, such as confusion in choosing the proper roads and delays through detours.

FORD FINISHES PLANS FOR NEW FLIVVER

Watch for the successor to the flivver. It also will be a Ford product. That is the word coming from Detroit, where it is said Henry Ford has completed plans for a new model which would make the rider believe he was in a Cadillac. The details of the new car are not available, except that the motor has been designed to eliminate every bit of vibration and that the body of the car will be entirely of metal.

It is estimated one sea lion will eat 50 to 100 salmon a day or the equivalent in other fish.

Tourists who yet possess bottled joy for internal application will be particularly interested in the town of Connersport, Pa. "Several years ago an ice mine was discovered here, which has been a puzzle to geologists, as the ice melts in winter and congeals in the summer months," states the Automobile Blue Book. This natural wonder has been taken over by an organization which plans many improvements and developments to the surrounding park land.

## WINS DISTINCTION BY ITS BETTER QUALITIES

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## Electric Wiring Supplies

With the approach of fall the days are shortening and nightfall is commencing to creep towards late afternoon.

Soon it will be dark when you drive home from the office. Perhaps you are planning electric lights for your garage this winter, or extensions in your home, or a porch light.

Remember, that at the Cheesman Automobile Company you can secure all the wiring supplies you need at the smallest cost. Wire of all sizes—switches, fuses—in fact, everything you'll need.

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